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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,737	11/17/2003	Vivek Jaiswal	P17144	4377
<div>46915      7590      06/27/2007 KONRAD RAYNES &amp; VICTOR, LLP. ATTN: INT77 315 SOUTH BEVERLY DRIVE, SUITE 210 BEVERLY HILLS, CA 90212</div>				
			<div>EXAMINER KEEFER, MICHAEL E</div>	
			<div>ART UNIT 2154</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 06/27/2007</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/715,737	Applicant(s) JAISWAL ET AL.	
	Examiner Michael E. Keefer	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2003 and 28 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/8/2004</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is responsive to the Application filed 11/17/2003 and the Preliminary Amendment filed 8/3/2006.

#### ***Drawings***

2. The drawings were received on 7/27/2006. These drawings are acceptable.

#### ***Claim Objections***

3. Claims 1-38 are objected to because of the following informalities:

Regarding **claim 1**, it is suggested that in line 3 the phrase --one of said-- be inserted after the word "initiating" to improve the clarity of the claim.

It is suggested that in line 3 the word "system," be deleted and replaced with the word --systems,-- to improve the clarity of the claim.

It is suggested that in line 6 the phrase --initiating one of-- be inserted after the word "the" to improve the clarity of the claim.

It is suggested that in line 7 that the word "system" be deleted and replaced with the word --systems-- to improve the clarity of the claim.

It is suggested that in line 8 that the word "one" be deleted and replaced with the word --a-- to improve the clarity of the claim.

It is suggested that in line 8 that phrase --one of said-- be inserted after the word "transmitting" to improve the clarity of the claim.

It is suggested that in line 8 that the word "system," be deleted and replaced with the word --systems,-- to improve the clarity of the claim.

Similar corrections are suggested in **claims 14 and 26**.

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**Claims 2-7, 15-20, and 27-32** are objected to for depending upon objected claims 1, 14 and 26.

Regarding **claim 3**, it is suggested that in line 2 that the word "a" be deleted and replaced with the word --the-- to improve the clarity of the claim.

It is suggested that in line 2 the word "one" be deleted and replaced with the word --the-- to improve the clarity of the claim.

It is suggested that inline 4 the phrase --of said-- be inserted after the word "one" to improve the clarity of the claim.

It is suggested that in line 4 the word "system" be deleted and replaced with the word --systems-- to improve the clarity of the claim.

It is suggested that in line 6 the word --the-- be inserted after the word "to" to improve the clarity of the claim.

It is suggested that in line 6 the word "system." be deleted and replaced with the word --systems.-- to improve the clarity of the claim.

Similar corrections are suggested in **claims 16 and 28**.

Regarding **claim 4**, it is suggested that in line 3 the word --the-- be inserted after the word "and" to improve the clarity of the claim.

Similar correction is suggested in **claims 17 and 29**.

Regarding **claim 5**, it is suggested that in lines 1-2 and 3 the phrase "the end user system" be deleted and replaced with the phrase --the one of said end user systems-- to improve the clarity of the claim.

Similar correction is suggested in **claims 18 and 30**.

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Regarding **claim 6**, it is suggested that in line 2 the phrase --of said-- be inserted after the word "one" to improve the clarity of the claim.

It is suggested that in line 2 the word "computer." be deleted and replaced with the word --computers.-- to improve the clarity of the claim.

Similar corrections are suggested in **claims 19 and 31**.

Regarding **claim 7**, it is suggested that in line 2 the phrase "the end user computer communicates" be deleted and replaced with the phrase --the end user systems communicate-- to improve the clarity of the claim.

Similar correction is suggested in **claims 20 and 32**.

Regarding **claim 8**, it is suggested that in line 3 the phrase --one of said-- be inserted after the word "initiating" to improve the clarity of the claim.

It is suggested that in line 3 the word "system," be deleted and replaced with the word --systems,-- to improve the clarity of the claim.

It is suggested that in line 5 the word --initiating-- be inserted after the word "the" to improve the clarity of the claim.

It is suggested that in line 6 the word --initiating-- be inserted between the words "the" and "end" to improve the clarity of the claim.

It is suggested that in line 9 the word "the" be deleted and replaced with the word --a-- to improve the clarity of the claim.

It is suggested that in line 9 the phrase --one of said-- be inserted between the words "transmitting" and "end" to improve the clarity of the claim.

Similar corrections are suggested in **claims 21 and 33**.

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**Claims 9-13, 22-25, and 34-37** are objected to for depending from objected claims 8, 21, and 33.

Regarding **claim 10**, it is suggested that in line 1 the number "1" be deleted and replaced with the number --8-- to improve the clarity of the claim.

It is suggested that in line 2 the word "a" be deleted and replaced with the word --the-- to improve the clarity of the claim.

It is suggested that in line 4 the phrase --of said-- be inserted after the word "one" to improve the clarity of the claim.

It is suggested that in line 4 the word "system" be deleted and replaced with the word --systems-- to improve the clarity of the claim.

It is suggested that in line 6 the phrase "one end user system." be deleted and replaced with the phrase --the one of said end user systems.-- to improve the clarity of the claim.

Similar corrections are suggested in **claims 23 and 35**.

Regarding **claim 11**, it is suggested that in line 4 the word --the-- be inserted after the word "and" to improve the clarity of the claim.

Similar corrections are suggested in **claims 24 and 36**.

Regarding **claim 12**, it is suggested that the occurrences of the phrase "the end user system" in lines 2 and 4 be deleted and replaced with the phrase --the one of said end user systems-- to improve the clarity of the claim.

Similar corrections are suggested in **claims 25 and 37**.

Regarding **claim 13**, it is suggested that in line 1 the number "1" be deleted and replaced with the number --8-- to improve the clarity of the claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 26-37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding **claims 26-37**, the "Article of manufacture," in accordance with Applicant's specification, may be "transmission media such as ... wireless transmission media, signals propagating through space, radio waves, ... etc" (page 9 lines 17-19). This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. Instead, it includes a form of energy. Energy does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 14, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Hare et al. (US 2003/0167338), hereafter Hare.

Regarding **claims 1, 13, and 26**, Hare discloses:

A method for transmitting packets between a plurality of end user systems and one server, comprising:

in response to receiving an initial packet from an initiating end user system, communicating with the server to establish a network session and obtain a network session identifier; ([0022] lines 1-6 disclose a end user system sending data (i.e. a packet) to a gateway, which then sets up a PPPoE session with the server. [0031] discloses that a unique session ID is generated for that client's session)

adding an entry to a data structure associating a connection with the end user system and the network session identifier; ([0031] discloses that the unique ID can be used by the PPP client layer in the gateway to determine the source/destination of a frame; in order to do so an association between the unique ID and the client it belongs to must inherently be stored in some form of data structure.)

in response to receiving a data packet from one transmitting end user system, processing the data structure to determine the network session identifier associated with the connection to the transmitting end user system; ([0031] discloses that the PPP



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client layer uses the session ID to determine the source/destination (i.e. the proper network session that the frame belongs to) for data transmitted from the client.)

and communicating the data packet from the transmitting end user system to the server using the network session corresponding to the network session identifier.

([0032] discloses sending data from the non-PPPoE client to the access concatenator using PPPoE (which uses the unique session ID as shown above))

Regarding **claims 2, 15, and 27 and as applied to claims 1, 14, and 26**, Hare discloses:

encapsulating the data packet from the transmitting end user system with a header including the determined network session identifier, wherein the encapsulated data packet is transmitted to the server. (Hare discloses in [0037] encapsulating the data packets from client 132 into PPPoE frames (which inherently include the aforementioned unique session ID))

Regarding **claims 3, 16, and 28, and as applied to claims 1, 14, and 26**, Hare discloses:

in response to receiving a data packet from the server, determining one network session identifier included with the received data packet; determining from the data structure the Connection to one end user system associated with the determined network session identifier; and transmitting the data packet on the determined connection to one end user system. ([0030] discloses the process whereby a packet from the access concatenator (i.e. the server) is stripped of the PPPoE data and

forwarded to the end user system 132, again using the unique session ID as disclosed in [0031].)

Regarding **claims 4, 17, and 29 and as applied to claims 1, 3, 14, 16, 26, and 28** Hare discloses:

wherein the network session identifier is included within a header encapsulating the data packet from the server, further comprising:

removing the header and network session identifier from the data packet, wherein the extracted data packet is transmitted on the determined connection. ([0030] discloses the process whereby a packet from the access concatenator (i.e. the server) is stripped of the PPPoE data and forwarded to the end user system 132, again using the unique session ID as disclosed in [0031].)

Regarding **claims 5, 18, and 30 and as applied to claims 1, 3-4, 14, 16-17, 26, and 28-29**, Hare discloses:

wherein the data packet received from the end user system is encapsulated in a Point-to-Point Protocol (PPP) packet and the connection with the end user system comprises a standard telephone line and wherein the data packet from the server is encapsulated in a PPP over Ethernet (PPPOE) packet having a header including the network session identifier of the PPPOE network session over which the PPPOE packet was transmitted. (Hare discloses that client 132 is any client unable of supporting the PPPOE protocol. Hare similarly discloses that the access concatenator (i.e. the server) only supports the PPPOE protocol. (See [0021]) In addition, Hare, in the last 5 lines of [0030] states that the PPP (and not PPPoE data) may be provided to the

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client 132, clearly implying that the client, while unable to support PPPoE, is able to support a PPP session with the gateway. [0018] discloses that network 120 may be a variety of networks, for instance, a private network (i.e. a telephone line.))

Regarding **claims 6, 19, and 31 and as applied to claims 1, 14, and 26**, Hare discloses:

wherein one network session identifier is obtained from the server for each connection to one end user computer. ([0031] discloses that in one embodiment each client 132 has its own PPPoE session, and thus its own unique session ID.)

Regarding **claims 7, 20, and 32, and as applied to claims 1, 14, and 26**, Hare discloses:

the server comprises an Internet Service Provider (ISP) server and wherein the end user computer communicates with the ISP server to access a network through the ISP server. (an access concatenator is an ISP server, which allows access to network 160 see Fig. 1)

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8-13, 21-25, and 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hare in view of Voit et al. (US 2002/0044567), hereafter Voit.

Regarding claims 8-13, 21-25, and 33-37, Hare discloses:

Regarding **claims 8, 21, and 33**, Hare discloses:

A method for transmitting packets between a plurality of end user systems and one server, comprising:

communicating the data packet from the transmitting end user system to the server using the network session corresponding to the network session identifier.

([0032] discloses sending data from the non-PPPoE client to the access concatenator using PPPoE (which uses the unique session ID as shown above))

Regarding **claims 9, 22, and 34 and as applied to claims 8, 21, and 33**, Hare discloses:

encapsulating the data packet from the transmitting end user system with a header including the determined network session identifier, wherein the encapsulated data packet is transmitted to the server. (Hare discloses in [0037] encapsulating the data packets from client 132 into PPPoE frames (which inherently include the aforementioned unique session ID))

Regarding **claims 10, 23, and 35, and as applied to claims 8, 21, and 33**, Hare discloses:

in response to receiving a data packet from the server, determining the network address included with the received data packet; determining from the data structure the connection to one end user system associated with the determined network address; and transmitting the data packet on the determined connection to one end user system. ([0030] discloses the process whereby a packet from the access concatenator (i.e. the

server) is stripped of the PPPoE data and forwarded to the end user system 132, again using network address in the packet.)

**Regarding claims 11, 24, and 36 and as applied to claims 8, 10, 21, 23, 33, and 35** Hare discloses:

wherein the network session identifier is included within a header encapsulating the data packet from the server, further comprising:

removing the header and network session identifier from the data packet, wherein the extracted data packet is transmitted on the determined connection. ([0030] discloses the process whereby a packet from the access concatenator (i.e. the server) is stripped of the PPPoE data and forwarded to the end user system 132, again using the unique session ID as disclosed in [0031].)

**Regarding claims 12, 25, and 37 and as applied to claims 8, 10-11, 21, 23-24, 33, and 35-36,** Hare discloses:

Wherein the network address comprises an IP address, wherein the data packet received from the end user system is encapsulated in a Point-to-Point Protocol (PPP) packet and the connection with the end user system comprises a standard telephone line and wherein the data packet from the server is encapsulated in a PPP over Ethernet (PPPOE) packet having a header including the network session identifier of the PPPOE network session over which the PPPOE packet was transmitted. (Hare discloses that client 132 is any client unable of supporting the PPPOE protocol. Hare similarly discloses that the access concatenator (i.e. the server) only supports the PPPOE protocol. (See [0021]) In addition, Hare, in the last 5 lines of [0030] states that

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the PPP (and not PPPoE data) may be provided to the client 132, clearly implying that the client, while unable to support PPPoE, is able to support a PPP session with the gateway. [0018] discloses that network 120 may be a variety of networks, for instance, a private network (i.e. a telephone line.) Hare discloses the use of an IP stack in the gateway for embodiments where client 132 is in an IP network)

Regarding **claims 13 and 38 and as applied to claims 8 and 33**, Hare discloses:

wherein the operations of assigning the network address, adding the entry to the data structure, determining one network session identifier and communicating the data packet are performed in a system separate from the server and terminating on one end of the connections to the end user systems. (See Fig. 1, the gateway is separate from access concatenator and is on one end of the end user systems.)

Hare discloses all the limitations of claims 8-13, 21-25, and 33-37 except for:  
in response to receiving an initial packet from an initiating end user system,  
assigning a network address to the end user system;

adding an entry to a data structure associating a connection with the end user system and the network address assigned to the end user system;

determining one network session identifier of a network session on which data packets from multiple end user systems are transmitted to the server.

Voit teaches:

in response to receiving an initial packet from an initiating end user system, assigning a network address to the end user system; (Fig. 8, note the teaching of using a DHCP server to assign an address to the device)

adding an entry to a data structure associating a connection with the end user system and the network address assigned to the end user system; (Fig. 8, note the teaching of setting up a routing table in the CPE (i.e. gateway) using the assigned network address of the end user system.)

determining one network session identifier of a network session on which data packets from multiple end user systems are transmitted to the server. (Voit teaches the use of the gateway as a PPPoE proxy server where all end-user transmissions are sent via one PPPoE connection. See [0191])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Hare with Voit in order to facilitate finger gradation of services within the local network. (Voit, [0034])

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Japanese publication 2002247098 discloses a system that contains multiple PPP clients, and converts their packets into a PPPoE session before forwarding the packets onto an IP network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael E. Keefer whose telephone number is (571)

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270-1591. The examiner can normally be reached on Monday-Thursday 5:30am-3pm, second Fridays 5:30am-2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NATHAN J. FLYNN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2/00

MEK 6/16/2007